

**Abstract**

The invention relates to a programmable radio having an internal packet network for communicating between the functional modules of the radio. Modules may have a network controller, a network connector, memory for storing the instructions and processors to execute the instructions to implement the functional aspects of the radio, such as signal reception and conversion, internal data routing and output signal transmission. The network may be configured as a bus, a daisy chain or a central hub, and may be implemented using twisted pair, cable, fiber, or a wireless link. The network itself may use standard network protocols applicable to Ethernets, asynchronous transfer mode networks, token ring networks, resilient packet ring networks, or other similar "internet" networks.